

DOCKET NO: 250512US55DIV

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
ALAN K. SMITH, ET AL. : ATTN: APPLICATION BRANCH  
SERIAL NO: NEW APPLICATION :  
FILED: HEREWITH :  
FOR: HUMAN LINEAGE COMMITTED :  
CELL COMPOSITION WITH ENHANCED :  
PROLIFERATIVE POTENTIAL, :  
BIOLOGICAL EFFECTOR FUNCTION, :  
OR BOTH; METHODS FOR OBTAINING :  
SAME; AND THEIR USES

PRELIMINARY AMENDMENT

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Prior to examination, please amend the above-identified application as follows.

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Remarks** begin on page 9 of this paper.

IN THE SPECIFICATION

Page 1, after line 6, insert the following text:

--CROSS-REFERENCE TO RELATED APPLICATION

The present application is a Divisional Application of U.S. Application Serial No. 09/893,470 filed June 29, 2001, pending, which is a Continuation Application of U.S. Serial No. 09/027,671 filed February 23, 1998.--

IN THE CLAIMS

The following listing of claims will replace all prior versions of the claims in this application:

Claims 1-45 (Cancelled)

46. (New) A composition comprising lineage committed dendritic cells exhibiting enhanced biological function as compared to the biological function of the lineage committed dendritic cells cultured ex vivo under conditions which do not include replacement of the liquid culture medium during the culturing.

47. (New) The composition of claim 46, wherein the biological function enhanced in the isolated lineage committed dendritic cells comprises increased release of cytokines.

48. (New) The composition of claim 46, the lineage committed dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of at least 25% daily replacement for more than one day.

49. (New) The composition of claim 46, the lineage committed dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of at least 50% daily replacement for more than one day.

50. (New) The composition of claim 46, wherein the lineage committed dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of from 25% to 100% daily replacement for about  $1 \times 10^4$  to about  $1 \times 10^7$  cells/ml culture for more than one day.

51. (New) The composition of claim 46, wherein the dendritic cells are antigen primed dendritic cells.

52. (New) The composition of claim 46, wherein the dendritic cells are myeloid derived dendritic cells.

53. (New) The composition of claim 46, wherein the dendritic cells are non-myeloid derived dendritic cells.

54. (New) A composition comprising lineage committed human dendritic cells exhibiting enhanced biological function as compared to the biological function of the lineage committed human dendritic cells cultured ex vivo under conditions which do not include replacement of the liquid culture medium during the culturing.

55. (New) The composition of claim 54, wherein the biological function enhanced in the isolated lineage committed human dendritic cells comprises increased release of cytokines.

56. (New) The composition of claim 54, the lineage committed human dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of at least 25% daily replacement for more than one day.

57. (New) The composition of claim 54, the lineage committed human dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of at least 50% daily replacement for more than one day.

58. (New) The composition of claim 54, wherein the lineage committed human dendritic cells are cultured under conditions where the liquid culture medium is replaced at a rate of from 25% to 100% daily replacement for about  $1 \times 10^4$  to about  $1 \times 10^7$  cells/ml culture for more than one day.

59. (New) The composition of claim 54, wherein the human dendritic cells are antigen primed dendritic cells.

60. (New) The composition of claim 54, wherein the human dendritic cells are myeloid derived dendritic cells.

61. (New) The composition of claim 54, wherein the human dendritic cells are non-myeloid derived dendritic cells.

62. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 46.

63. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 47.

64. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 48.

65. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 49.

66. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 50.

67. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 51.

68. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 52.

69. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 53.

70. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 54.

71. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 55.

72. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 56.

73. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 57.

74. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 58.

75. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 59.

76. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 60.

77. (New) A method of treating a human patient in need of an infusion of lineage committed human dendritic cells, comprising administering to said patient a composition according to claim 61.